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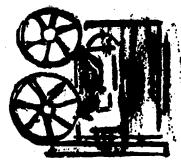
THE USE OF CONTEMPORARY MATERIALS IN THE CLASSROOM. BY- KNOX, LOIS AND OTHERS NATIONAL EDUCATION ASSN., WASHINGTON, D.C.

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THE INTRODUCTORY CHAPTER OF THIS PAMPHLET EMPHASIZES THE IMPORTANCE OF SUPPLEMENTARY INSTRUCTIONAL MATERIALS AND PROVIDES GUIDELINES FOR THE EVALUATION OF THE SPECIFIC USEFULNESS OF VARIOUS TEACHING AIDS. SUBSEQUENT CHAPTERS ARE DEVOTED TO EACH OF THE AREAS. OF THE ELEMENTARY CURRICULUM, INCLUDING (1) SOCIAL STUDIES, (2) LANGUAGE ARTS, (3) SCIENCE, (4) MATHEMATICS, (5) MUSIC, (6) ART, AND (7) HEALTH, SAFETY, AND PHYSICAL EDUCATION. EACH CHAPTER CONSISTS OF (1) A BRIEF STATEMENT OF PROGRAM SCOPE AND OBJECTIVES, (2) A SUMMARY OF THE UNDERSTANDINGS, FEELINGS, ATTITUDES, AND PERCEPTIONS CONTRIBUTED TO THE EDUCATIONAL ENVIRONMENT BY THE INDIVIDUAL STUDENTS, (3) A DISCUSSION OF THE TEACHER'S ROLE IN ORGANIZING AND PRESENTING INSTRUCTIONAL AIDS, AND (4) AN ENUMERATION OF THE MATERIALS AND RESOURCES FURNISHED BY THE SCHOOL FOR THE ENRICHMENT OF THE EDUCATIONAL PROGRAM. AMONG THOSE THINGS LISTED AS MATERIALS AND RESOURCES ARE STUDY TRIPS, RESOURCE CLASSROOM VISITORS, GUIDANCE PERSONNEL TO HELP TEACHERS, MOVABLE FURNITURE, AMPLE PINBOARD SPACE, WALL PICTURES AND CHARTS, MAPS, GLOBES, FILM AND FILMSTRIP PROJECTORS, TELEVISION SETS, RADIOS, TAPE RECORDERS, MUSICAL INSTRUMENTS, AND ART SUPPLIES. A BIBLIOGRAPHY IS PROVIDED WHICH INCLUDES GENERAL ENTRIES AND ENTRIES PERTINENT TO EACH OF THE INDIVIDUAL CHAPTERS OF THE PAMPHLET. THIS DOCUMENT IS AVAILABLE FOR \$0.75 FROM NEA, 1201 SIXTEENTH STREET, N.W., WASHINGTON, D.C. 20036. (JS)



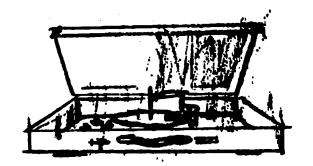
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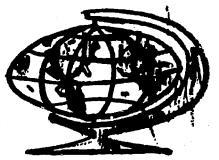
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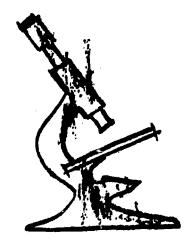
CONTEMPORARY



MATERIALS IN



THE CLASSROOM





U. S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE OFFICE OF EDUCATION

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INTRODUCTION

The Use of Contemporary Materials in the Classroom

A child is stimulated and motivated by his environment. When he functions as a responsible, self-directed citizen in a rich school environment where freedom of value choice is evident, the classroom becomes a laboratory.

A dynamic classroom laboratory houses a teacher who is aware of the needs of each child in the group; he provides opportunities for exploration, experimentation, and choice; he recognizes the value of open systems of learning for children; he places materials in the environment that encourage children to find answers, to discover, and to extend understandings.

Questions such as the following provide guidelines for the teacher as he evaluates the vast range of materials and resources to be included in the classroom for a particular group of students: Does the material relate and contribute to the content structure of the curriculum? Will the use of the material strengthen pupil skills in understanding, critical thinking, problem solving, and ability to communicate? Will the material contribute to attitudes and deepen appreciations? Are materials sufficiently varied to meet the range of abilities, needs, interests, and maturity levels of the individual pupils? Are the materials adequate for the number of children in the classroom? Are materials arranged and organized to provide for the maximum utilization of space, easy access, and ready availability?

THE CHILDREN BRING . . .
THE TEACHER GUIDES . . .
THE SCHOOL PROVIDES . . .

THE CHILDREN BRING to school varied backgrounds of experiences and cultures. The presence of each child in the classroom makes this group special and inimitable. Each child's unique contribution is utilized by the teacher and by the students as a resource in the classroom; his hobbies, interests, skills, and abilities as well as the materials and resources brought from home—all contribute to the richness of classroom living.

THE TEACHER GUIDES children to interact and relate to the social and physical world around them by or-



ganizing appropriate centers of interest. Here materials and equipment that invite students to explore, experiment, and study are housed. The teacher guides children in using both in-school and out-of-school experiences and materials for discovering answers, solving problems, and aiding in learning. Children are encouraged to bring to the classroom information gained from at-home television viewing, radio and record listening, and family discussions. Out-of-school field trips and outings, personal experiences, club activities, and summer experiences are shared. Personal reading and observations of physical, social, and economic community activities and changes are utilized in the school program.

The teacher establishes a climate in the classroom which reflects his respect for the dignity and worth of each child; freedom with responsibility is the goal. The spirit of inquiry is encouraged through the kinds of materials children use as they engage in research and discussion in solving problems.

Many sources are made available to the children in classrooms where the teacher recognizes that the use of a single textbook provides a limited understanding and a narrow view. The teacher recognizes differences in abilities and includes a wide range of materials suited to the particular reading needs of individual children.

THE SCHOOL PROVIDES the children and the teacher with materials and equipment with which to work— a comfortable classroom with movable furniture, ample pinboard, space for interest centers, a convenient sink with work



counters, and cupboards that provide storage space for equipment and materials. Chalkboards are easily seen from any part of the room. An outdoor work and living area is evident.

The school encourages participation in study trips; transportation to community resource areas is furnished; walking trips of the neighborhood are approved. The school provides a current resource file which lists information that can be used in planning an instructional trip or locating and securing a resource visitor from the community.

Electronic equipment including film and filmstrip projectors, television sets, radios, tape recorders, listening posts, and record players is easily accessible for classroom use. Wall pictures and study prints, maps and globes, films and filmstrips, viewmasters and disks, slides, and realia are provided. Reference and trade books, atlases, magazines, and newspapers supplement text reading. Science equipment; musical instruments; art materials; cooking, industrial arts, and gardening materials and equipment; and floor toys and blocks for young children are found in the school that recognizes a rich environment as primary in promoting learning in depth.

The school also provides adequate guidance personnel to help teachers and parents of children who have adjustment problems. Such problems are often revealed through the way in which the child relates to the world around him, both socially and physically, and through the academic progress he is making.





Materials and Resources for the SOCIAL STUDIES

The social studies include that area of the curriculum in which children learn about man's relation to his physical and social environment in the present, the past, and the future. Through experiences in the social studies, children find out how man has met and solved his problems. They begin to appreciate the values that have grown out of these experiences; they develop attitudes and human relations that enable them to function more effectively both as individuals and as members of a social group.

The content of the social studies is drawn from the major areas of the social sciences including history, geography, political science, economics, social psychology, anthropology, sociology, philosophy, and other disciplines concerned with man. Related experiences in the physical sciences, music, art, and literature deepen this understanding of man as a social being.

THE CHILDREN BRING to the social studies their eagerness to know more about the workings of the world in which they live. Each brings his own life-space—his experiences with people, places, and things; his understanding of how social and intellectual problems are resolved; his own feelings and attitudes about himself and people in his immediate world and in the larger surrounding world, real or remote; and his awareness of people, situations, and events. His contributions reflect the quality of school and home living he has experienced.

THE TEACHER GUIDES children toward identifying problems in the classroom social studies program that are worthy of individual and group study. In providing materials to aid children in the solution of their problems, the teacher is aware of the many ways in which children learn and so includes materials for children to react to through touching, seeing, listening, and sometimes, smelling and tasting. All materials and equipment described in the Introduction make contributions to the area of social studies and are organized into centers to be effectively utilized by the teacher who tries to build on all the senses. Those especially relevant are the listening, viewing, and work centers where children can use social studies materials adapted for use in these centers. The creative teacher will supplement what the school provides by including such things as:



STUDY PRINTS that provide answers, arouse curiosity, motivate, and stimulate.

DISPLAYS AND EXHIBITS of materials about which children may ask questions or which they may use to find answers.

CHARTS on which are recorded ongoing activities in the social studies, study trips, experiments, plans for dramatic play, student established guidelines for behavior, use of materials, individual or group suggestions, or pictures and information not available in reference materials on the level of some individuals in the classroom.

STUDENT-MADE BOOKLETS in which are placed children's drawings, paintings, and stories of engoing activities in the social studies.

MATERIALS AND EQUIPMENT for dramatic play and dramatization which may include hats and clothing and authentic or reproduced materials for stimulating play, such as a shopping bag for the store, a rubber hose for the gasoline station, a wooden churn for use in a study of the American pioneers.

ment to the teacher for the development of creative social studies programs in the classroom. Instructional materials are available from a central supply area in the school and from the district instructional materials center and library.





Consultant specialists are available to aid teachers in the selection and utilization of materials as well as to provide help in planning a social studies program.

Field trips are provided for in the school budget. The school office helps in arranging transportation and supplies other needed clerical help. An up-to-date listing of worthwhile local and extended community centers that welcome school visitors is available to the teacher.

The school provides the teacher with bulletins covering the local community and its place in the surrounding area. Community history, major industrial and agricultural centers, and major changes occurring in community growth may be included.

The school encourages the teacher to utilize resource people within the community, including parents of children in the school, by providing a list of people who might be of value in a particular study.

The school also provides opportunities for parents to join in school activities so they may understand the place of the social studies in the local school program. The school recognizes that the social studies contribute more than any other area in the curriculum to a school program committed to the basic values and processes of democracy.





Materials and Resources for the LANGUAGE ARTS

The school world of the child is a world of language—listening, speaking, writing, reading, and interacting. Development in communication cannot be limited to the language period. The language arts are part of the child's total school experience and a significant part of his out-of-school living. The language arts—sometimes called the arts of understanding—interpret the world to the child, and he interprets his world through them.

Opportunities for the child to develop skill in each of the areas of the language arts occur throughout the entire school day; time for the teacher to guide skill development is regularly scheduled.

THE CHILDREN BRING to school their backgrounds of language experiences. Each child's vocabulary and understanding of what he hears reflect his home, his community, and the relationships he has had in the world around him. His ability to communicate with others depends upon the opportunities he has had to talk with others who are willing to listen and to supply ideas and words. His ability to hear the world around him reflects his awareness of the people and things in his environment. His feelings about himself and about the world are reflected in his speech and writing; in this way, he expresses his security, his understanding, his fear, and his unsureness of the world. His own perception of the world is related to his ability to feel the sights, sounds, and activities occurring around him. He listens to and understands only that of which he is truly a part. He willingly reads that which promotes further understanding, answers his questions, enriches his background, or extends his appreciation of the way in which words and thoughts can be expressed in printed form.

THE TEACHER GUIDES children to extend their abilities in the fields of communication by helping them feel comfortable in talking to others and feel self-worth in what they have to say. The teacher sets the tone of respect for the ideas of others as he listens attentively and appreciatively to what individuals say.

By extending warm support and acceptance to each individual in the classroom, the teacher encourages expression of ideas and frees the child to try out next steps in language patterns. In this way, children make positive adjustments to their world.



Many opportunities are provided during the school day for children to listen to stories and poetry which sharpen their ears to the imagery, excitement, beauty, and rhythm of words. The teacher builds background by becoming familiar with the best children's literature and selects and makes available story records in the classroom, including old favorites as well as new selections.

Opportunities for reading occur throughout the entire day. Children are helped individually as they share with the teacher materials from books which they have selected for their own reading and reporting.

The teacher guides children in reporting in oral and written form the discoveries they have made and the research they have done independently and in directed reading. Correct form in spelling and composition is naturally developed as children strive for correctness of materials that will be read by others on bulletin boards and in class and student booklets that will be taken home and shared with family members.

The teacher guides children in discovering the joys of writing by providing many opportunities for rich sensory experiences conducive to creative writing. The teacher helps children recall and feel through reading appropriate prose and poetry, discussing what has been read, and showing sincere appreciation of the efforts of the writer. The teacher knows





that undue attention to skills during creative efforts sometimes lessens the quality of what the child is attempting to put down in writing and reduces his interest in writing.

The joy of discovering and using new words for vivid description in speaking and writing is shared by children and teacher alike. Word boxes, dictionaries, and charts of needed words are provided to aid the children.

The teacher organizes the classroom environment to foster better communication:

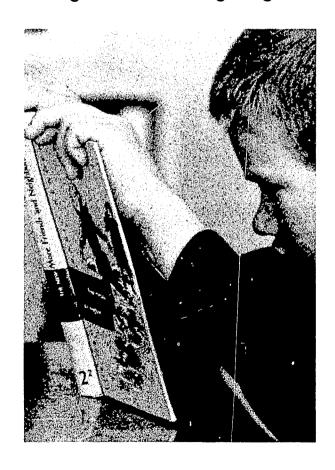
A SEATING ARRANGEMENT where children can see one another easily for group discussion.

A LIBRARY CENTER which invites children to see and read prose and poetry books, reference books, encyclopedias, magazines, and newspapers—all covering a range of ideas and difficulties.

A WRITING CENTER with dictionaries, a class word file, word lists, an idea box, paper and pencils, and type-writer for children to use.

AN ART CENTER where children may illustrate their stories, books, and reports through various art media.

A VIEWING CENTER where a filmstrip projector may be used with filmstrips on literature, science, and social studies for checking information and getting ideas.





A LISTENING CENTER for hearing favorite story records and taped materials.

A DISPLAY CENTER which exhibits children's work in the language arts and selected commercial displays.

A RECORDING CENTER where a tape recorder may be used by children who wish to record and listen to their reading and discussions.

REALIA AND MATERIALS for use in dramatization and dramatic play.

THE SCHOOL PROVIDES materials and equipment which the teacher may use in the development of a rich language arts program. Paper supplies including tagboard, newsprint and construction paper in various sizes and colors, pencils, ball-point pens, and scissors are available for each classroom.

Study prints, art prints, realia, and display materials may be checked out from a central source and placed in appropriate centers in the classroom.

The school provides opportunities for study trips to the theatre, public library, and book shops. The teacher utilizes all study trip experiences, including those of other areas of the curriculum, in promoting language experiences and providing opportunities for language development.

The school encourages use of resource people in the classroom, and the teacher guides children in assuming responsibility for greeting, introducing, and thanking such people.

Electronic equipment and supplies are made available for classroom use—film projectors, slide and filmstrip projectors, record players, and tape recorders. The telephone is available for student use in extending invitations to resource people and in interviewing selected resource people. The school helps the teacher plan such activities.

Consultants who are specialists in the language arts are available to aid the teacher in planning classroom activities and using materials in the areas of communication. Speech and hearing consultants are provided to help children with severe speech problems.

The school library provides many kinds of reading materials for classroom use—a variety of reference materials and a wide selection of children's books, magazines, and newspapers. The library is open for student and class use throughout the school day as well as before and after school. Librarians help the children find the materials they need and assist them in learning how to use library facilities.



Materials and Resources for SCIENCE

Science is a search for the detailed structure of nature, an attempt to understand it and make practical efforts to use and control these phenomena. Its way of working—the scientific method—provides an organized approach to living for all children and fosters the development of skills, attitudes, and understanding of how man controls his environment.

In the elementary school, science is related to the everyday experiences of children. Its content experiences are drawn from the questions they ask and the concerns they have about the world around them.

THE CHILDREN BRING to school their natural curiosity regarding the world around them; each child is an investigator who wants to know what it is and why it is. Such inquiry reflects the child's interests and is the stimulant for energetic learning and problem-solving involvement. A child's basic drive to activity provides another facet for keeping alive interest and curiosity. Each classroom is a laboratory where children study, observe, and experiment.

THE TEACHER GUIDES the child in the areas of his concerns and interests to the depth of his ability and the extent of his present achievement. Activities built on these areas of concerns and interests may be termed "incidental ex-





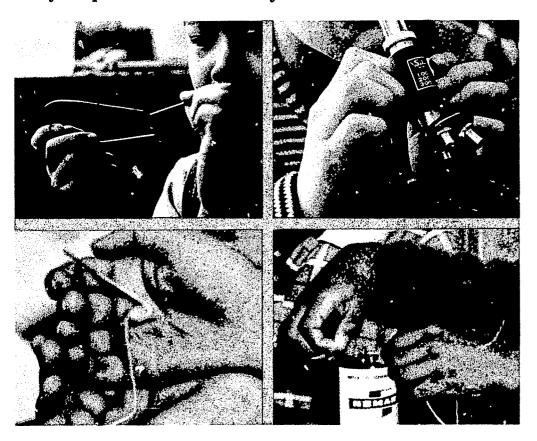
periences" arising from the life-space of the child; they provide opportunities for meaningful problem solving and exploratory thinking.

The teacher also introduces the child to new areas of science that are not part of his experience. In both areas, the teacher includes learnings for concept development regarding the universe, the earth, living things, chemical and physical phenomena, and changes man has made in his environment. The teacher recognizes that not all of these areas need to be included for each child or class. Instead, he provides opportunities for understanding according to the maturity of the learner. Both physical and biological sciences are included.

The teacher utilizes a wide variety of materials in implementing science learning. First-hand experiences and experimentation are part of the program. Everyday household items such as candles, batteries, pliers, pulleys, wire, and rubber bands are part of the basic inventory in each classroom.

The teacher selects appropriate reference materials in which children can explore, find answers, verify information, and extend understanding. A range of difficulty in materials is provided. Teacher-made charts supplement commercial reference materials.

THE SCHOOL PROVIDES a philosophy of science education and a set of objectives that dignify this area of study as part of the elementary school curriculum. It values





science as a contributor helping man utilize new knowledge in solving his social problems.

The school leads the community in recognizing that many current events in the world scene require scientific understanding. The focus is on changing child behavior rather than merely giving instruction in science content.

The school purchases commercial equipment—litmus paper, test tubes, thermometers, microscopes, magnets, and motors—to supplement the household items the teacher has selected to facilitate active participation. Electronic equipment—television sets and radio, film, slide, and filmstrip projectors—are available for classroom use in extending interest and learning in science. Available from the instructional materials center are a variety of resource materials for teacher and children, a range of study prints in each of the major areas of science appropriate for varied maturity levels, and realia and collections for classroom use.

Consultants who are specialists in the fields of science and child growth and development are available to help the teacher in the selection of materials and experiences for children and to provide for the teacher vital in-service education programs to extend knowledge of content and use of equipment in this area.

The school identifies people within the community who will provide appropriate resource information for children and teacher. Transportation is provided for study trips.





Materials and Resources for MATHEMATICS

Mathematics is becoming increasingly important in today's culture. The need to understand its structure as well as to use it as a language is important for all children. One significant change in recent years places greater emphasis on the structure of mathematics. The patterns and relationships, which become apparent as the structure of the subject is studied, serve to make children's learning both useful and permanent. Such a point of view implies a common core of mathematics for all children. Certainly each child should comprehend as much of the structure as he is willing and capable of learning. It does imply differences in amount and depth of content and in rate of progression.

THE CHILDREN BRING to the area of mathematics their daily use of numbers and their need for mathematical thinking. These experiences provide a basis for making mathematical discoveries and for exploring relationships. In the process of learning, each child uses manipulative and pictured materials as representations of number ideas. As the mathematics has meaning for him, he will learn to describe what he sees in mathematical language and to record it in mathematical sentences or equations. While ability to think abstractly is the ultimate goal in mathematics instruction, it cannot be achieved without success in the earlier stages of development.

THE TEACHER GUIDES children in keeping alive their interest in logical thought. As he works with children, he combines his knowledge of mathematics with his understanding of how children grow, develop, and learn. His professional training includes recent emphasis on mathematics, reading materials regarding the whole mathematics area, and knowledge of specific materials appropriate for individual children in a particular classroom. Consultant assistance in this area is utilized by the teacher. New materials for children are explored and studied. The child is guided to use the discovery method at the concrete level of objects and pictures and at the abstract level of ideas as he manipulates known facts to help in the mastery of those less well-known. The teacher makes certain that mastery sufficient for effective use as determined by the future needs of the individual child



is eventually achieved. He provides an environment in which discoveries in varied situations may be made and verified and in which a problem-solving approach is encouraged.

The teacher knows that the amount and kind of work activities necessary for each child vary. He recognizes the point at which a child has mastered a skill and frees him to move to newer concepts, knowing that unnecessary drill of a mastered skill deadens interest. For practice, he provides challenging, open-ended exercises that stimulate the child to go as far as his ability and interest will take him.

THE SCHOOL PROVIDES an adequate supervisory staff, knowledgeable and communicative in mathematics. It encourages faculty study sessions in the local schools. It arranges with nearby colleges and universities to provide content courses in mathematics and plans in-service educational opportunities for understanding content and methods to be used in the school.

It encourages experimentation in the classroom based upon study, inquiry, and interest.

It values all children since all of them will appreciate and apply mathematics in varying degrees as adults.

The school assumes its responsibility for providing materials for the teacher both for his own information and for use in the classroom:





RESOURCE BOOKS for children include textbooks as well as reference books on different levels of difficulty.

WRITTEN MATERIAL for the teacher provides guidance in current changes.

TELEVISION FOR THE TEACHER strengthens his understanding of changes in content and develops confidence to try new materials.

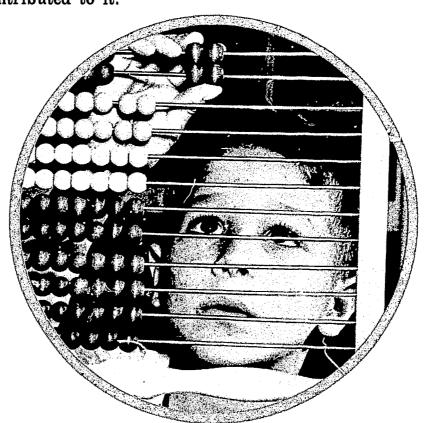
TELEVISION FOR CHILDREN exposes them to new content and strengthens their understanding of concepts being learned.

TAPES of professional speakers in the mathematics field encourage additional exploration and study.

FILMS AND FILMSTRIPS for the teacher permit study and review of content and r thods of mathematics in a meaningful manner. Films and filmstrips can also be used with children to increase meaningful learning.

MANIPULATIVE MATERIALS at each level, such as an open-ended abacus, colored rods, linear and liquid measures, scales, compasses, discs, and clocks, are essential.

FIELD TRIPS AND RESOURCE PERSONS increase interest and enthusiasm as well as deepen understanding and appreciation of mathematics and those persons who have contributed to it.



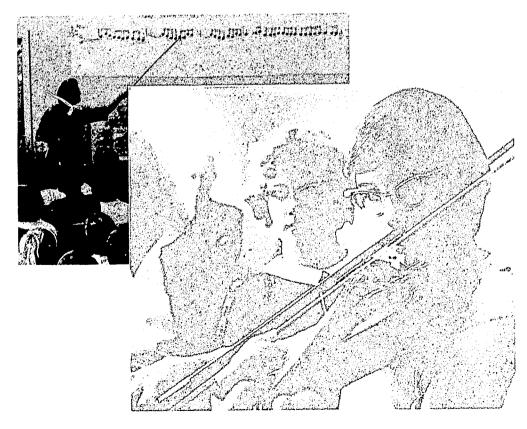


Materials and Resources for MUSIC

The music program in the elementary school provides the child with a means of fulfilling one of his basic needs—the need for esthetic and emotional expression. Through a variety of musical experiences, the child has the apportunity not only to listen to and appreciate music but also to communicate his feelings and ideas to others. In a well-balanced, sequential music program, the child increases his ability to express himself in rhythmic movement, singing, and sound tonal patterns and grows in the understanding of musical ideas. By nature, all children are responsive to music, but this responsiveness differs in degree and kind and requires a variety of activities to meet the individual interests and needs of each child.

A program of music education is evaluated by the musical growth of the pupils who participate in it. Factors affecting musical growth include the innate capacity of the pupil, the interest and ability of the teacher, the understanding and support of the administration and the community, and the adequacy of the physical equipment and instructional materials provided.

THE CHILDREN BRING to the music program varied musical experiences related to their home and com-





munity environments. Each child's background of attitudes and interests reflects a rich or meager music environment. Each child also brings a varying degree of mesical ability which will grow with encouragement and opportunity in direct relation to his active participation in music.

THE TEACHER GUIDES children through a varied program so that each child may find pleasure in several forms of musical activity. The teacher effectively uses materials and resources to ensure music experiences that will help the child develop music standards and grow in his ability to be a discriminate performer and listener.

The teacher who has a genuine affection for both children and music provides opportunities to bring the two together in a satisfying way. Children with special interests and abilities are recognized and encouraged. Music participation is not for the classroom alone but should extend into the total life of the child, helping him to better understand and appreciate his own and other cultures.

The teacher uses books, pictures, charts, and the music center to promote musical interests. Rhythm and tonal instruments are available for manipulation and experimentation to aid in developing a degree of playing skill.

THE SCHOOL PROVIDES opportunities for all children to develop the skills necessary for satisfying and reward-





ing experiences both in performing music and in listening to it. It helps children become acquainted with and participate in the musical activities of their own community.

Consultant specialists in music are available to aid the teacher in the selection and utilization of materials as well as to help the teacher plan his music programs. The school provides opportunity for special class instruction in the playing of instruments and in choral work by including special teachers on the school staff. It provides continuous opportunities for in-service education in the use of music materials and equipment.

The school encourages children and parents to attend the musical performances presented in their community and utilizes special resource people from the community to share their talents with the children.

Record players are provided in each classroom. Radios, television sets, tape recorders, pianos, and a library of well-selected recordings are available for teacher use. A variety of music texts including song books, children's books on music and musicians, and reference books for the teacher are available in the school library. Musical instruments provided for each classroom include autoharp, tone bells, and rhythm instruments such as drums, triangles, wood blocks, and maracas.





Materials and Resources for

ART

Experiences with a variety of art media provide children with opportunities to sense and respond to the world around them and to express what they feel and know. They develop feelings for line, color, space, form, texture, and design. They develop skill in the use of materials, and they are guided in developing an understanding of art principles that will help them to express their ideas creatively and fluently and to appreciate the art of others.

THE CHILDREN BRING to school natural desires to manipulate and experiment with materials. In the early years of school, they are eager to try out different ways in which colors and materials go together. In the later years of elementary school, this attitude broadens or narrows according to the number of opportunities they have had to experiment and find satisfaction in working with art materials.

THE TEACHER GUIDES children through many rich art experiences. The teacher knows that growth in creative expression takes time—time to manipulate and experiment with materials, time to put together and take apart, time to try again and again, time to feel personal satisfaction in the growing ability to control materials.

The teacher provides time and incentive for children to paint, model, draw, print, and construct. He helps each child grow in the appreciation of the beauty in materials he sees, feels, and uses in the world around him. The teacher provides a well-planned art lesson at least once a week. New materials and techniques are introduced, and follow-up lessons in the use of old materials are scheduled.

The teacher organizes work centers in the classroom in which children can find a variety of familiar art materials which they are encouraged to use daily. To this center, children also may bring novel materials which they have discovered in their environment. The teacher respects and encourages individual creative expression. Space is provided in the classroom for displaying the work of artists along with the children's art work. The teacher guides children to appreciate the efforts of others.

He makes a variety of materials readily accessible and encourages children to manipulate and experiment. The teacher knows that detailed directions and copy work cause conformity and discourage creativity.



The teacher provides needed help and instruction in art techniques and guides children in refining their work.

THE SCHOOL PROVIDES adequate supplies and materials for children. Water colors, brushes, paper, containers, pans, spray, and poster and finger paint mixtures are available for painting. Crayons, chalk, and charcoal are provided for drawing. Prepared mixes, sawdust crunch, and red and white clay with appropriate glazes are available for modeling and finishing completed materials. At least one kiln is provided in every school. Wood, wire, yarn, cloth, and paper of all kinds—tissue, crepe, newsprint, construction, poster—are provided for construction. Sponges, wood blocks, vegetables, gadgets, and more complex tools may be obtained for use in printing. The school provides sinks with running water in each classroom. Materials such as buckets, sponges, and soft rags for cleaning up are also supplied.

The school encourages walks and study trips where children may observe the colors, movements, and rhythms in their environment. It also locates artists from the local area who





enjoy being invited into the classroom to share their ideas, feelings, and interests with children. Visits to public and private art galleries are scheduled.

Electronic equipment and audiovisual materials are supplied for viewing appropriate films, filmstrips, slides, and television programs that enrich learning, develop understanding, and deepen individual expression.

Art prints and art objects are stocked in the instructional materials center. The school library contains a collection of books for children as well as current professional books and magazines concerned with creativity and art education for teachers.

The school provides consultants with backgrounds in elementary curriculum and special strengths in art who are available to help the teacher plan classroom art experiences. A dynamic in-service program is coordinated by art consultants who are aware of the teacher's need to feel adequate in his own use of art materials so that he may provide support and security to the children in his class.





Materials and Resources for EHEALTH, SAFETY, AND PHYSICAL EDUCATION

Health and safety education encompasses physical and mental health as well as safety and includes both instruction and practice. The goal is to help each child accept responsibility for his own well-being insofar as he is able. In providing information, developing constructive attitudes, and encouraging good health and safety practices, the daily experiences of the child provide the most dynamic approach to learning.

THE CHILDREN BRING to school inquiring minds and growing bodies with built-in drives for physical activity. The precise nature of each child's body and his health and safety habits depend upon the environment in which he has lived as well as upon his physical and mental heredity. His mental health—his attitude toward himself and others—depends on how he sees himself in relation to the social and physical world; this also derives from experiences in his environment.

THE TEACHER GUIDES each child to a better understanding of his body—its functions, growth, strengths, limitations, and needs. Daily real-life experiences are used to help children learn about nutrition, exercise, accident prevention, first aid, disease control, and self-understanding. Regular health instruction is provided, and good health habits are encouraged throughout the day.

The teacher assumes responsibility for understanding the health needs of each child by studying health records. He provides a classroom climate conducive to emotional balance and stability; individuality is respected, and expectations are high but realistic. Through opportunities for adult-child conferences and group discussions, role playing, and other devices, children are aided in the development of positive attitudes toward themselves and others.

The physical education program is a regular part of the daily program, and instruction and guidance are provided commensurate with each child's abilities and needs. The program includes opportunities for individual activities, rhythmic activities, games, and self-testing exercises. The teacher observes each child's development or physical education skills and social habits and secures the help of special consultants and services for children with special needs. He



evaluates the worth of his health, safety, and physical education program by its effect on the growth of children in skills, understanding, and behavior.

THE SCHOOL PROVIDES a healthy and safe environment and encourages a program of health understanding and good health habits. Classrooms are well-lighted and ventilated; good working temperatures are maintained; seating is comfortable and conducive to good posture. Drinking fountains and toilet facilities are adequate and sanitary.

The playground has sufficient space, equipment, supplies, and materials to permit all children to have opportunities to develop skills essential in our society—space to run, skip, dance, swim, and play games; equipment for climbing, hanging, jumping; supplies such as balls, bats, jump ropes, rackets, records and simple instruments for use in rhythm and dance.

The health center in the classroom contains materials related to health instruction and supplies needed for ongoing experiments. Books and reference materials are available in the school to enable children to find information related to individual and class interests. Specialists in health, safety, and physical education are available. They help the teacher acquire the understanding and skill needed to teach children by providing consultant services, demonstrations, and in-service education. The school nurse and doctor and pertinent school and community personnel such as the custodian, fireman, policeman, traffic officer, sanitation worker, workers who sell, prepare, and serve food, and other persons in the community with special skills in these areas are invited to contribute to the richness of the program.







The quality of the teacher, the consultant, the classroom itself-all these determine the quality of learning that takes place in the school, the progress made by each child toward fulfilling his learning potential. Contemporary materials available to both teacher and pupil potentially make the classroom a rich laboratory for learning, a stimulating and challenging place for working. The fulfillment of this potential depends on the way in which the available materials are used. The question, "What materials are provided in the classroom?" is indeed important, but its value is dependent on a second question, "How does the teacher utilize these materials in attaining educational goals?" An answer to the first is meaningless without an answer to the second. The school assumes much of the responsibility for the provision of materials, but the teacher alone determines the effectiveness of such materials by the way in which he utilizes them.

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Boys and girls were each asked to select one word which had special meaning for them. Following careful observation of the arrangement of letters in the chosen word, children were asked to close their eyes, and visualize the word through the mind's eye. "Take another look . . . now close your eyes . . . see if you can see the word," afforded a second opportunity for those who indicated hesitancy in recognition.

One remark, "I know which one Tom will choose . . . the shortest one," called for additional reassurance from the teacher. "Who knows, the shortest word may be the most

difficult one to see," brought the needed acceptance.

The procedure was explained: thoughts and feelings about the chosen word were to be expressed through pantomime. Upon recognition of the pantomime, an attempt would be made to spell the word.

The teacher demonstrated, selecting the word stiff. With great pretended difficulty, she seated herself, pretending her leg was stiff, covered with a cast from ankle to hip.

"Which word do you think I have chosen?" queried the teacher.

Jill replied, "I think it's twenty-five."

Attempting to conceal a look of surprise the teacher asked, "Why?"

"Because you acted so old."

"It might have been, Jill, but it doesn't happen to be the word that I chose."

Additional opportunities produced the correct word. Care must be taken not to block further communication by comments when incorrect answers are given.







Upon identification of the word, spelling was attempted. Members of the class checked the student's spelling either by spelling silently or by writing the word.

Members of the class may assist the speller who is hesitant to spell. The incident described here occurred in one sixth-grade classroom:

Stewart had chosen a word delightful for pantomiming but difficult to spell. While actions expressed clearly and sensitively his thoughts and feelings, two attempts at spelling failed to bring satisfaction to Stewart or to members of the class.

The teacher was supportive. "Determined is a difficult word to spell, Stewart. I can remember when I had trouble with it. From the determination displayed in his pantomime, I have a feeling Stewart is determined to arrive at the correct spelling." Then the class sounded out the word as a gesture of assistance to Stewart. With renewed confidence and determination, Stewart succeeded and returned to his desk with a glowing feeling of accomplishment.

The children were quick to evaluate:

"You can hardly miss when you see the word in your mind."

"This is fun because you don't have to do school work."

"You can do the best you know how to do and nobody grumbles," remarked Stewart.

Often a word such as *scale* necessitates several pantomimes to clarify the part of speech intended. One boy indicated through movement of arms and legs his *scaling* a tree; another followed with a clear-cut pantomime of *scaling* a salmon in the market; a girl



registered horror as she stepped on the *scales* to check her weight; still another student appeared to be reading a *scale* of notes at band practice.

Occasionally it is necessary to wait for a good audience—and to wait is a must. The first movement in the pantomime may provide a clue to the word chosen; the boy or girl ready to share the pantomime needs the respect of his classmates; members of the class need opportunities to exercise self-discipline.

As individual words are spelled by members of the class, each has the opportunity to check his own spelling by writing the word at his desk or by checking the spelling of the contributor.

Experiences that result from interaction of the children cause excitement about achieving accuracy in spelling. Then it is that a delight in knowing is experienced, a desire for clarity in communication.

Teacher Education

Since intake and output of ideas is a lifelong process, teachers add to and rework experiences of thinking, feeling, borrowing from stockpiles of learning. As long as there is life, need for learning continues. One teacher sensitively expressed that need in the poem that follows:





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I am rooted deeply in the earth,
I drink freely of her life,
Yet I am not content,
Ever deeper and deeper must I probe.

I gaze on faraway sky and eagerly reach toward her.

I tremble with delight when she smiles upon me, And weep when she weeps.

I listen to the song of the wind as she rushes by.

My branches stretch out after her but I cannot follow.

I sigh with deep longings for that which I cannot know yet.

Sometimes the world is very still and I wait Reluctuatly, thoughtfully, and grow.

But I still must grow. Rent by lightning I weep until my wound is healed.

Wedged in by rocks I grow until they split and crumble.

Cut down, I send forth new shoots from living roots.
Still I must grow.

Teachers who appear to be constantly "on the grow" seek opportunities for continuous exercise of the senses, ever moving toward realization of creative potential. Some teachers find outlets for expression in workshops through media such as action and reaction in pantomime as the photographs indicate.

Imagine the following baseball game: There are two outs . . . bases are loaded . . . two runners must score to win the game. You are up to bat. How do you feel about it? What do you do?

Imagine jumping rope. Feel the freedom or movement developed through this and other similar pastimes.



Imagine you are a member of a prize-winning baton-twirling team. How could the audience tell that yours was the winning team? Why would it stand out above other teams? What actions characterize excellence?

Each individual possesses an intense desire to succeed. With the awareness of a problem comes a struggle to discover a satisfying solution and ultimate achievement. In the process greater forces are set in motion toward self-fulfillment. Such purposes can be realized by providing opportunities for success through application of intense effort in an imaginative activity. As one becomes prepared to meet new situations, the best of one's ability surges forth; excitement for learning reaches new heights; greater breadth and depth in meaning is attained.



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Conclusion

Every teacher possesses the magical power to provide challenging educative experiences which children need to become happy, productive citizens in a democracy. Through a process of thinking, feeling, and experiencing, an intense desire to learn can be developed. The ability to give the right amount of help to each child so that he will experience successful learning and living exists in the good teacher. The majority of children are ready and willing. As Myrtle Burger has said:

"All things we desire And strive so hard to reach Lie freshly, like blossoms, furled In the heart of the child we teach."



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